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09/915,716	07/26/2001	Leslie C. Smith	3968.037	6561

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Evelyn A. Defillo
Pendorf & Cutliff
5111 Memorial Highway
Tampa, FL 33634-7356

EXAMINER

DELGOTTO, GREGORY R

ART UNIT

PAPER NUMBER

1751

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,716

Applicant(s)

SMITH ET AL.

Examiner

Gregory R. Del Cotto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14,16-21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14,16-21 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 14, 16-21, and 23 are pending. Note that, Applicant's amendments and arguments filed 8/10/06 have been entered. Note that, the Examiner has corrected an inadvertent error in the rejections below. Murphy (US 6,313,079), Romack et al (US 5,858,022), Bijl et al (US 6,605,580), or Townsend et al (US 5,784,905) were inadvertently combined with Iliff et al in the rejection line in the Office action mailed 2/10/06; this has been corrected so that all of these references are properly combined with Severns et al as set forth below. It was clear previously that all these references were combined with Severns et al as indicated in the body of the rejection mailed 2/10/06.

Objections/Rejections Withdrawn

The following objections/rejections as set forth in the Office action mailed 2/10/06 have been withdrawn:

The rejection of claims 14, 16-21, and 23 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 14, 16-20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iliff et al (US 5,412,958) in view of Severns et al (US 2002/0013234).

Iliff et al teach a dry cleaning system particularly suited for employing supercritical CO₂ as the cleaning fluid consisting of a sealable cleaning vessel containing a rotatable drum adapted for holding a soiled substrate, a cleaning fluid storage vessel, and a gas vaporizer vessel for recycling used cleaning fluid. See Abstract. In a further embodiment, a smaller container is downstream of the main

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chamber and is preferably in-line with the liquid CO₂. The purpose of the container is to hold a means for imparting to the substrate cleaned by the cleaning vessel an aesthetic or commercially enhancing material soluble or dispersible in the dense or supercritical fluid, such as liquid CO₂. One of the principal but not sole, uses for this means for imparting an aesthetic or commercially enhancing material would be scenting, preferably vegetative matter containing essential oils. The vegetative matter can include flower petals, herbs, bark, leaves, from which can be extracted essential oils or other compounds soluble in liquid CO₂, such as camphor, menthol oils, orange oils, rose oils, and the like. See column 6, lines 45-69.

Iliff does not teach the specific fragrance ingredients nor a cleaning system containing liquid CO₂, the specific fragrance system, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Severns et al teach fabric care compositions comprising a perfume, methods for using such compositions and systems for their use in a lipophilic fluid treatment process. See Abstract. The term lipophilic fluid is intended to mean any non-aqueous fluid capable of removing sebum. See para. 33. Preferred lipophilic solvents include linear and cyclic polysiloxanes, hydrocarbons, chlorinated hydrocarbons, etc. See para. 89. Suitable perfumes include aromatic and aliphatic esters, aliphatic and aromatic alcohols, aliphatic ketones, aromatic ketones, etc. It is essential to select the perfume ingredients that can effectively provide the best residual perfume odor benefit on fabrics and it is preferable that at least about 25%, preferably at least about 40%, and more

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preferably at least about 75% by weight of the perfume is composed of enduring perfume ingredients that appreciably remain on fabrics after drying, perfume ingredients having low odor detection threshold, and mixtures thereof. See para. 94. Suitable enduring perfumes include benzyl salicylate, ethyl vanillin, eugenol, isoeugenol, methyl-n-methyl anthranilate, hydroxycitronellal, etc. See para. 98 to para. 100. Suitable low odor detection threshold perfume ingredients include benzylsalicylate, methyl anthranilate, linalool, isoeugenol, ethyl vanillin, etc. See para. 103. Note that, the Examiner asserts that these perfume ingredients taught by Severns et al are the same as those listed in Table 4 as having fabric affinity value of between 5 and 7 which are the same fabric affinity values as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a fragrance system including benzylsalicylate, methyl anthranilate, etc., in the composition taught by Iliff et al, with a reasonable expectation of success, because Severns et al teaches the use of a fragrances such as benzylsalicylate, methyl anthranilate, etc., in a similar textile cleaning system, and further, Iliff et al teaches the use of essential oils and fragrances in general.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a cleaning system containing liquid CO₂, a specific fragrance system, and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable of success and similar results with respect to other disclosed components, because the broad teachings of Iliff et al in combination with Severns et al suggest a cleaning system containing liquid CO₂,

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a specific fragrance system, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Claims 14, 16-21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy (US 6,313,079), Romack et al (US 5,858,022), Bijl et al (US 6,605,580), or Townsend et al (US 5,784,905), all in view of Severns et al (US 2002/0013234).

Townsend et al teach an improved liquid carbon dioxide dry cleaning system containing an improved dry cleaning fluid. The dry cleaning fluid contains an antistatic agent for dissipating static charge on members or garments generated by friction during cleaning thereof. An odorizing agent or fragrance, and/or a deodorizing agent may be added to the cleaning fluid. See Abstract.

Romack et al teach a method for dry-cleaning articles such as fabrics and clothing in carbon dioxide comprises contacting an article to be cleaned with a liquid dry cleaning composition for a time sufficient to clean the fabric. The liquid dry-cleaning composition comprises a mixture of carbon dioxide, water, a surfactant, and an organic co-solvent. See Abstract. Additionally, numerous other additional ingredients can be included in the compositions including bleaches, whiteners, fragrances, etc. See column 3, lines 35-45.

Bijl et al teach a bleaching composition comprising a bleach-effective amount of an inorganic bleaching agent, a bleach-compatible solvent, 0 to 10% by weight of a surfactant, less than 10% by weight of a modifier, and an effective dry cleaning amount of densified carbon dioxide, said composition being essentially free of organic peracid or

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precursor thereof. See Abstract. Additionally, the composition may contain other ingredients such as perfumes, antistatic agents, etc. See column 10, lines 1-20.

Murphy teaches a surfactant comprising a heterocyclic group that results in superior cleaning in a dry cleaning system. The surfactant can have one or more heteroatom and can result in reverse micelle formation in a densified gas like densified carbon dioxide. See Abstract. Optional additives may also be used in the composition and include anti-static agents and deodorizing agents. The deodorizing agent typically includes fragrances such as those described in US 5,784,905 which is incorporated by reference. US 5,784,905 teaches that typical fragrances or scents such as natural or synthetic oils and related products. See column 3, lines 50-60.

Murphy, Romack et al, Bijl et al, or Townsend et al do not teach the specific fragrance ingredients nor a cleaning system containing liquid CO₂, the specific fragrance system, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Severns et al are relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a fragrance system including benzylsalicylate, methyl anthranilate, etc., in the composition taught by Murphy, Romack et al, Bijl et al, or Townsend et al, with a reasonable expectation of success, because Severns et al teaches the use of a fragrances such as benzylsalicylate, methyl anthranilate, etc., in a similar textile cleaning system, and further, Murphy, Romack et al, Bijl et al, or Townsend et al teach the use of essential oils and/or fragrances in general.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a cleaning system containing liquid CO₂, a specific fragrance system, and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable of success and similar results with respect to other disclosed components, because the broad teachings of Murphy, Romack et al, Bijl et al, or Townsend et al, all in combination with Severns et al, suggest a cleaning system containing liquid CO₂, a specific fragrance system, and the other requisite components of the composition in the specific proportions as recited by the instant claims.

Response to Arguments

Applicant once again states that the present invention relates to a fragrance system in which the selection of fragrance ingredients is based according to their relative fabric affinities (γ) as defined by the claim, and at least 60% of the compounds have a relative fabric affinity of at least 4. Further, Applicant states that the objective technical problem of the invention is to provide a process for cleaning soiled garments of fabric materials, so that a substantive odor on the garment or fabric is obtained. In response, note that, the Examiner asserts that the fragrances taught by Severns et al have the same fabric affinity value as recited by the instant claims and that the teachings of Iliff et al, Murphy, Romack et al, Bijl et al, or Townsend et al in combination with Severns et al would suggest textile cleaning compositions containing the same perfumes providing substantive odor on the fabric as recited by the instant claims. Furthermore, Applicant states that there is no motivation to combine the teachings of Iliff

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et al, Murphy, Romack et al, Bijl et al, or Townsend with Severns et al because Severns et al is not drawn to a carbon dioxide cleaning system. In response, note that, Severns et al is a secondary reference relied upon for its teaching of perfume materials suitable for use in cleaning fabrics. The Examiner maintains that one of ordinary skill in the art would clearly have been motivated to use a fragrance system including benzylsalicylate, methyl anthranilate, etc., in the composition taught by Iliff et al, Murphy, Romack et al, Bijl et al, or Townsend et al, with a reasonable expectation of success, because Severns et al teaches the use of a fragrances such as benzylsalicylate, methyl anthranilate, etc., in a similar textile cleaning system, and further, Iliff et al, Murphy, Romack et al, Bijl et al, or Townsend et al teach the use of essential oils and/or fragrances in general. Thus, the Examiner asserts that the prior art cited in the above rejections provides motivation for one of ordinary skill to formulate a cleaning system containing liquid carbon dioxide and the specific fragrance system as recited by the instant claims.

Additionally, Applicant once again states that the inventors have identified a previously unrecognized parameter (y) that, unlike the teaching of Iliff, identifies fragrance systems suitable for use in a liquid CO₂ system. In response, note that, the Examiner asserts that the fragrances taught by Severns et al would have the same fabric affinity value as recited by the instant claims because Severns et al teach essential oils and fragrances which are the same as listed in the instant specification (See page 4, lines 1-35 of specification). Additionally, the Examiner asserts that the compositions suggested by Iliff et al, Murphy, Romack et al, Bijl et al, or Townsend in

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combination with Severns et al are drawn to cleaning compositions containing fragrance(s) which are used to clean fabrics and therefore, it would be desirable to one skilled in the art to determine the optimum amounts and types of fragrances applied to a textile surface. Thus, the result-effective variable (y) as recited by the instant claims which represents fragrances which are substantive to the garments would be recognized by Iliff et al because Iliff et al teaches fragrances which would also need to be substantive to the textile surface.

With respect to the comparative data presented on pages 11-23 of the instant specification, Applicant states that this data shows that the fabric affinity value (y) is critical in that there is an indication that fragrance ingredients fraction of at least 60% with a fabric affinity value of at least 4 produces a substantive odor on the garment or fabric treated. In response, note that, the Examiner asserts that the data shows what one of ordinary skill in the art would reasonable expect and does not show any unexpected properties; one skilled in the art would expect that fragrances having a relatively high fabric affinity would leave a stronger odor on the garment.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

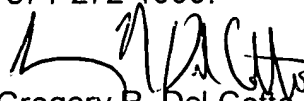
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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (571) 272-1312. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Gregory R. Del Cotto

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Primary Examiner
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GRD
October 16, 2006